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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/821,932	03/30/2001	Dennis Boyd	26422/25020	8175

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EXAMINER
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LAVINDER, JACK W

ART UNIT	PAPER NUMBER
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3677

DATE MAILED: 03/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/821,932

Applicant(s)

BOYD, DENNIS

Examiner

Jack W. Lavinder

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 December 2004.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,3,4,7-23,27 and 30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 27 and 30 is/are allowed.
- 6) ☒ Claim(s) 1,3,4,7 and 9-23 is/are rejected.
- 7) ☒ Claim(s) 8 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

***Detailed Office Action***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 3, 7, 9-20 22, 23, are rejected under 35 U.S.C. 103(a) as being unpatentable over Fisher, 6568011, in view of Arsenault, 5423094.

Regarding claim 1, Fisher discloses an air mattress (200, col. 5, lines 4454) comprising a first inflatable compartment (204, 240) with substantially straight, vertically extending sides (218, figure 6), wherein the first compartment has a top layer of vinyl (206, figure 10) and a bottom layer of vinyl (204, fig. 10). The mattress also includes a second inflatable layer (202, 242, figure 10) secured at least along a portion of the first inflatable compartment at a point spaced inwardly from the sides of the first inflatable compartment (figures 9 and 10), i.e., figure 10, on the left hand side shows a seal that attaches the top layer of the first compartment (240) to the top layer of the second compartment (242) at a spaced location from the sidewall in which the valve 210 is located. The assumption from figure 9 is that the seal extends completely around the entire top layer of the top compartment as shown by the peripheral dotted line. The second inflatable compartment's height (242) is substantially less than the height of the first inflatable compartment (240, figure 10). Fisher's air mattress also includes an open fluid communication channel between the first and second inflatable compartments (abstract). Figure 9 shows a series of circular seals (23) connecting the top layer (202)

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to the middle layer (206). In-between these seals are gaps between the top and middle layer that provide air flow communication channels. Figure 10 shows, on the left side of the figure, a spot seal (230) connecting the top layer (202) to the middle layer (206). As shown the middle layer does not extend to the sidewall. Since the middle layer doesn't extend to the sidewall, air communicates between the lower chamber (240) and the upper chamber (242) via the gaps between the spot seals (230) on the left hand side of figure 10 and most likely on the right hand side of the mattress. These gaps allow open communication between the top and bottom chambers and the inflation and deflation valves (210, 212, col. 5, lines 45-54).

The second inflatable compartment (242) in Fisher shares it's bottom wall (206) with the top wall of the first inflatable compartment (240). Fisher fails to disclose two separate layers of vinyl, one forming the top of the lower compartment and the other forming the bottom of the upper compartment.

Arsenault discloses an air mattress made from two separate inflatable bladders: a first top bladder (6) and a bottom second bladder (10, 28). The top bladder is in open fluid communication with the lower bladder via valve elements 18. The use of two separate bladders provides an added benefit when one of the bladders develops a leak. A cost savings to the owner is achieved in that only the bladder with the leak will have to be replaced. The other bladders would still function normal once the replacement bladder is reattached to the mattress. Whereas a leak in an air mattress with a combined upper and lower chamber, i.e., a mattress that doesn't have two independent bladders connected to one another via an air passage, would cause the owner to have

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to spend more money in order to replace the entire air mattress. Also, it appears that there are associated manufacturing complexities with the building of the combined chamber air mattress. The manufacture of two separate air mattresses appears to be an easier and less costly process for making a two chambered air mattress.

It would have been obvious to a person having ordinary skill in the art to have made Fisher's combined chamber air mattress from two separate air mattresses as disclosed and taught by Arsenault for the reasons indicated above in the previous paragraph.

Regarding claim 3, Arsenault discloses a bottom layer of the second compartment is secured to the top layer of the first compartment via valves 18 (figure 3).

Regarding claim 7, Fisher discloses ribs (220, figures 7 and 8) having channels for air flow.

Regarding claim 9, Fisher discloses ribs in the first chamber (220) and in the second chamber (230), i.e., the circular seals are considered to be ribs in that they perform the same function as ribs (limiting outward expansion of the top layer).

Regarding claims 10-12, Fisher discloses a set of taller vinyl ribs in the first compartment (220), i.e., at least 25% taller than the ribs (230) in the second compartment.

Regarding claim 13, Arsenault discloses sealing the second compartment at a point (18) spaced from the periphery of the first compartment, which would allow some movement between the top and bottom compartments.

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Regarding claim 14, Arsenault fails to disclose placing the seal (18) approximately one inch from the side edge of the compartment. However, it would have been obvious to a person having ordinary skill in the art to have located the seal (18) between the top and bottom chambers anywhere on the surface of the chambers since any location would work equally as well as another in providing fluid communication between the top and bottom chambers and the specification fails to disclose any criticality as to the placement of the seal at one inch from the sidewall of the compartment.

Regarding claim 15, Fisher discloses an air mattress made with polyvinyl chloride sheeting (col. 3, lines 55-56).

Regarding claims 16 and 17, Fisher discloses the use of a single inflation valve (210) disposed in the sidewall of the mattress for inflating both the upper and lower chambers.

Regarding claims 18-20, the examiner takes official notice of the fact that the use of a pump attached to a mattress (temporarily or permanently) for inflating the mattress is old and well known. It would have been obvious to a person having ordinary skill in the art to have used a pump to inflate the mattress in order to reduce the amount of time needed to make the mattress useable and to prevent the user from becoming winded from manually trying to inflate the mattress.

Regarding claim 22, Fisher discloses a second compartment with a multitude of round plate-like seams (230).

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Regarding claim 23, Fisher discloses a second compartment being connected at a plurality of discontinuous positions (230) to provide a pillow-like feel to the mattress.

3. Claims 4, 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fisher in view of Arsenault as applied to claim 1 above, and further in view of Wolfe, 5598593.

Regarding claim 4, Fisher fails to disclose a soft, non-vinyl fabric secured to the top of the second compartment. Wolfe discloses securing a flocking material made from nylon, rayon, polyester, paper or cotton, to the top of the second compartment (70, col. 4, lines 33-40).

It would have been obvious to apply the flocking material to Fisher's top layer in order to provide a velvet-like finish to the top of the mattress, i.e., improve the feel of the mattress to the user.

Regarding claim 21, Fisher in view of Arsenault discloses a second chamber, i.e., the top chamber in Arsenault, but fails to disclose a single peripheral seam. However, Wolfe discloses that it is old and well known to make an air bladder from a top sheet joined via a heat seal around the periphery of the top sheet with a peripherally extending sidewall (col. 3, lines 7-17).

It would have been an obvious alternative design choice to have made Arsenault's bladder from a separate top sheet and sidewall sheet with a peripherally extending seam joining the two sheets together, as taught by Wolfe. One of ordinary skill in the art is motivated to use either design since both type of bladders perform the identical function, i.e., an air mattress support, equally as well as the other. Also, the

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specification fails to disclose any criticality to a bladder with a single peripheral seam as opposed to a bladder without a seam.

4. Claim 8 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. Claims 27 and 30 are allowed.

6. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Wu, 6618884 discloses an air mattress having an upper and lower chamber in open fluid communication with one another via valve 222. However, it cannot be applied because applicant's filing date predates Wu's earliest filing date.

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of




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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication should be directed to Jack W.

Lavinder at telephone number 703-308-3421.



Jack W Lavinder  
Primary Examiner  
Art Unit 3677

3/19/05